

DESC Solicitation SP0600-04-R-0117  
Fort Sam Houston, TX

Questions:

Water

1. For all chemicals used for treatment at the water plants for Fort Sam Houston, Camp Bullis, and Canyon Lake Recreational Area, including but not limited to:
  - a. chlorine
  - b. fluoride
  - c. sodium hexametaphosphate
  - d. polyphosphate or other polymers
  - e. potassium permanganate
  - f. other water treatment chemicals

Please provide the following information:

- A. Brand name and/or current supplier
- B. General dosage rate per day under normal average flow conditions (in mg/l, lbs per day, etc.)
- C. Actual amount used in the past year

**Response:**

**Camp Bullis:** Chlorine supplied by DPC Industries; 1.5 mg/L; 6 lbs/day;  
Total ~1800 lbs of Chlorine used per year at the three wells, DMSET,  
Well #5, and Well #3.

**Canyon Lake:**

Chlorine (gas form) is used. The injection rate is approximately 2 pounds per hour. Approximately two (2) 150 pound cylinders are used every two weeks. The chlorine gas is ordered through Dixie Chemical Co.

Cairox potassium permanganate supplied by Carns Chemical Company; 60 mL per 50 gallons of water (1.2 ml/gal). Approximate annual water production last year was 554,100 gallons. Total potassium permanganate usage is estimated at 660 liters.

**Ft. Sam Houston:**

Chlorine supplied by DPC industries. Total of 7,114 lbs was used last year.

Fluoride supplied by Pencco, Inc. ~2,500 lbs was used last year.

**Polymers from C150 Syntech Products Corp. ~ 3,200 lbs was used last year.**

2. Is the Fort Sam Houston water system interconnected with the San Antonio Water System or any other public water system?

***Response: No.***

3. Please provide or make available the monthly operating reports or other tabulation of the amounts of water pumped for each of the active wells used at all of the systems for the past 12 months.

***Response: Water Production logs will be provided in the Bidder's Technical Library.***

4. Are all secondary meters listed in Tables 6A and 6B currently being read on a monthly basis? Can the usage data be provided or made available for the same past 12 months as the pumping records? Are system water loss and accountability reports prepared and can they be provided?

***Response: All Water meters listed in Tables 6B (Housing meters) of the J3 Attachment are currently being read monthly. Approximately 53 of the meters listed in Table 6A are currently read monthly.***

**Fort Sam Houston: The flow meters on the wells are read daily.**

**Camp Bullis: The flow meters on the wells are read daily. The flow meter on the WWTP discharge is read daily.**

**Canyon Lake: The one primary water meter on the well is read daily. The flow meter on the WWTP discharge is read daily.**

5. Are routine sample analyses (bacteriological, chlorine, fluoride) for all three water systems currently being by base staff using base facilities? . If not, please indicate the lab that does the analyses.

***Response: Water testing is performed once per week by Fort Sam Houston personnel. Samples are collected and analyzed for bacteriological, chlorine, pH, and where applicable fluoride by Preventative Medicine on Post. Monthly samples are collected by Preventative Medicine and analyzed at the Bexar County Health Department laboratories monthly for all three systems.***

Wastewater:

1. For all chemicals used at the wastewater plants or in the collections systems for Fort Sam Houston, Camp Bullis, and Canyon Lake Recreational Area, including but not limited to:
  - a. chlorine
  - b. degreasers or enzymes
  - c. odor control chemicals
  - d. other chemicals

Please provide the following information:

- A. Brand name and/or current supplier
- B. General dosage rate per day under normal average flow conditions (in mg/l, lbs per day, etc.)
- C. Actual amount used in the past year

***Response:***

**Degreasers or enzymes are used in the collection system. Approximately thirteen (13) 55-gallon drums of degreasers/enzymes were used last year on all three systems. The degreasers/enzymes were purchased from Dixie Chemical Co. The majority, estimated at 80 %, is used on Fort Sam Houston, an estimated 10 % at Camp Bullis, and an estimated 10 % at Canyon Lake.**

**Camp Bullis: At the WWTP, the chlorine injection rate is 1.7 mg/L; approximately 6 lbs/day are used. Approximately 1,950 pounds was used last year.**

**Canyon Lake: The chlorine injection rate is approximately 2 pounds per hour. Approximately two (2) 150 pound cylinders are used every two weeks. The chlorine gas is ordered through Dixie Chemical Co.**

2. Are routine testing and sample analyses (DO, chlorine residual, BOD, TSS, bacteriological, etc.) for all three wastewater systems currently being by base staff using base facilities? . If not, please indicate the lab that does the analyses.

***Response:* Routine wastewater sampling for compliance monitoring at Camp Bullis and Canyon Lake is contracted out to Pollution Control Service. Field pH and DO testing is performed by system operators. Pollution Control Services address and contact number is as follows:**

**Pollution Control Service  
435 Isom Road Ste 228  
San Antonio, TX 78216-5144  
Phone (210) 340-0343**

3. How frequently is sludge and trash hauled from the treatment plants at Camp Bullis and the Recreational Area? Where is it hauled to?

**Response:** Sludge handling and disposal are described for each system below. Trash is accumulated in special dumpsters and disposed of off-site, as described in the J4-Attachment. Trash is collected for disposal approximately quarterly from Camp Bullis. Trash from Canyon Lake is hauled to Camp Bullis and placed in the dumpster at Camp Bullis.

**Camp Bullis:** Sludge is accumulated in the bottom of the clarifier and aeration basins. Twice a year the sludge is pumped from these units into a tanker truck and transported to a BFI Landfill for disposal. Approximately 68,000 gallons of sludge were disposed of last year from Camp Bullis. Approximately 70 cubic yards of trash are disposed of off-site annually. Records are available upon request either at Camp Bullis or at the Ft. Sam Houston Environmental Section.

**Canyon Lake:** Waste activated sludge is accumulated in a holding tank on site. Two (2) to three (3) times per year, depending on the amount of populous making use of the camp grounds, the sludge is removed from the holding tank and transported to San Antonio Water Systems Dos Rios Treatment Plant in San Antonio, TX for disposal. An estimated 39,000 gallons are disposed of annually.